

GRADE 6 TERM 1-3 COMPLETE NOTES

HOME SCIENCE

HEALTHY LIVING

ADOLESCENCE (13-19 YEARS)

- Pre adolescence is the stage of life between early childhood and adolescence.

Who is adolescent?

- Adolescent is the period between pre adolescence and adulthood.
- An adolescent is a child between the age of 13 to 19 yrs.
- An adolescent is also called a teenager

Changes that takes place during adolescences

- Girls and boys experience the :following changes
 1. **Physical change**- are changes which can been seen.
 2. **Emotional change**- are changes that cannot be seen, also called feelings
 3. **Social change**
- Changes are normal and we transition into adolescent differently.

We should accept and embrace changes fully.

- Talk to people to get right information about changes that take place during adolescence.

Physical changes in boys include

- a. Increase in body size
- b. Growth of hair under armpits and pubic area
- c. Developing acne and increased sweating
- d. Hair grows on their chin (beards)
- e. Voice breaks and becomes deeper.
- f. Experience wet dreams.

Physical changes in girls include

- a. Increase in body size
- b. Growth of hair under armpits and pubic area
- c. Developing acne and increased sweating
- d. Develop breasts
- e. Hips broaden
- f. Voice becomes melodious.
- g. Experience menstruation cycle.

Good grooming as a daily health habit

- **Good grooming is** the art of taking care of yourself and your body.
- Adolescent should maintain good grooming by
 1. Taking a bath daily so as to avoid bad odour
 2. Maintaining their hair by shaving, combing , plaiting or washing properly.
 3. During menstruation girls should change their sanitary towels regularly
 4. Shaving the hair under armpits and pubic hair because they hold a lot of sweat and dirt which bring bad odour
 5. Wearing clean and descent clothes.

Improvise items to be used for good grooming

- **Improvising** is making something using the available resources because you do not have the actual item required.
- PUPILS ACTIVITY
Page 9-10

Healthy eating habits for an adolescent

- Healthy eating habits make us grow healthy.
- It is important to eat enough food with a variety of all nutrients.
- This enable healthy growth and development during adolescent stage
- We should take balanced diet for healthy growth and development
- We should drink safe clean water regularly so as to replace fluids during sweating and to avoid dehydration
- We should take healthy snacks
- Adolescent should take food rich in iron to help in muscle development. Girls should take iron rich foods to replace what is lost during menstruation.
- We should take meals and snacks eat the right time
- We should always practise proper table manners when taking meals ,

Importance of physical exercise during adolescence

- Regular physical exercise helps us prevent health problems such as obesity that is lifestyle disease
- Exercise also help improves our mood and make our bones and muscles strong.
- It helps maintain a healthy body weight.
- Promotes healthy development of the body.

Safety precautions to observe in the environment as adolescents.

- It is important to observe safety precautions in the environment in order to avoid accidents and injuries.
- We can also avoid harm from people with bad intentions by observing safety in the environment.
- Always dress decently
- Avoid bad company.
- Do not accept gifts from strangers
- Avoid walking in dark and deserted places.
- Do not give strangers you met on social media your personal information.
- Do not exercise near dangerous places such as holes or dams.

ACCESSORIES AND COSMETICS

- An **accessory** is an item or article you wear or carry, other than your clothes to enhance the effect of clothes you wear such as belts, caps, ties, shoes, scarves and handbag.
- In fashion they are chosen to complete an outfit and complement the wearers look they also serve to express an individual identity or personality.
- **Cosmetics** also referred to as **make ups** are substances used on the body to improve on person appearance and enhance their beauty.
- There also used to hide or conceal blemishes on a person
- They are mainly used on face hands and feet.

Classifying accessories and cosmetics used by adolescents

- Accessories are mainly classified into two:
 1. Those that are carried (handbags, ceremonial swords)
 2. And those that are worn – necklace, earrings belts ties)
- Cosmetics can classified according to their functions, use or physical nature
- They include lotion, eye pencil, eye shadows, lipstick, nail polish and face powder.

Misuse of accessories by adolescent

- Misuse is the use of something in the wrong way or for wrong purpose.
- Misuse of accessories may not enhance person's appearance as intended and may end up giving an exaggerated look.

Misuse	of	cosmetics	by	adolescents
1.	Applying	too	much	cosmetics
2.	Borrowing other peoples	cosmetics		
3.	Bleaching	the	skin	using cosmetics
4.	Using	cosmetics	that	have expired
5.	Applying fresh cosmetics	on dirty face		
6.	Storing cosmetics poorly	such as exposing them to too much heat and sunlight		

Dangers of misusing cosmetics

- Most cosmetics are produced from chemicals hence wrong use may lead to health problems.
- 1. Cosmetics can cause cancer
- 2. Cosmetics can cause skin irritation
- 3. Cosmetics can cause bleaching of the skin
- 4. Cosmetics can cause allergic reactions.
- 5. Cosmetics can cause eye infections

Non communicable diseases and disorders

- **Communicable disease** and disorders are diseases that are spread from one person to another or from an animal to person.
- Also known as **infectious disease**
- **Non communicable diseases** are disease and disorders that cannot be passed directly from one person to another
- They are as a result of lifestyle, family history or factors within the environment.

Identifying non communicable disease and disorders

1. Epilepsy
2. Diabetes
3. Asthma
4. Hypertension
5. Heart disease
6. Obesity

Obesity

- Is a condition where one has excess weight and body fat which may increase the risk of other disease and health problems such as diabetes, high blood pressure and certain cancer

Sign and symptoms of obesity

1. Excessive body weight
2. Shortness of breath
3. One cannot perform simple physical exercises

Causes of obesity

1. Lack of physical exercise
2. Excessive intake of carbohydrates and fatty foods
3. Family history.
4. Stress which may result in increased appetite hence one over eats

Prevention and management of obesity

1. Doing physical exercise
2. Avoid taking food with excess fat
3. Taking a varied diet in their correct proportions.
4. Manage stress so as to be able to maintain healthy eating habits.

Diabetes

- Is a condition where the body is unable to control the levels of sugar in the blood. This may be because the body does not make enough insulin or cannot effectively use the insulin it makes.
- **Insulin** is a Hormone that controls the movement of sugar in and out of your body cells for energy.

Signs and symptoms of diabetes

1. Poor vision
2. Skin infections
3. Increased thirst and urination
4. Increased hunger and body weakness

Causes of diabetes

1. High consumption of fat and sugar
2. Lack of physical exercise
3. Family history

Prevention of diabetes

1. Eating healthy meals with reduced fats and sugar
2. Doing regular physical exercise

Management of diabetes

1. Taking a varied diet and in correct proportions
2. Taking prescribed drugs correctly

Hypertension

- Also known as **high blood pressure**
- Is a condition the pressure of blood in the veins and arteries is high

Causes of hypertension

1. Excessive intake of salt
2. Lack of proper management of stress
3. Lack of physical exercise
4. Diabetes and obesity may also lead to hypertension
5. Excessive intake of alcohol and smoking cigarettes

Signs and symptoms of hypertension

1. Shortness of breath
2. Headaches
3. Poor vision
4. Nose bleeding
5. Weakness and dizziness
6. Rapid heartbeat.

Prevention of hypertension

1. Managing stress
2. Doing physical interest
3. Eating healthy foods
4. Maintain healthy body weight
5. Reducing intake of salt
6. Avoiding intake of alcohol and smoking

Management of hypertension

1. Going to regular medical check ups
2. Taking prescribe medication
3. Maintain your blood pressure regularly

Epilepsy

- Is a disorder of the brain characterised by repeated seizures.
- During a seizure a person will temporarily experiences abnormal behaviour and sensations, sometimes including loss of consciousness
- It may occur as a result of generic disorder or acquired brain injury such as trauma or stroke

Causes of epilepsy

1. severe head injury
2. brain infections
3. Family history
4. Drug and substance abuse
5. A growth in the brain

6. Restricted amount of oxygen circulating in the brain

Signs of Epilepsy

1. Seizures
2. Dizziness
3. Temporary confusion
4. Loss of consciousness or awareness

Prevention and management Signs of Epilepsy

- Treated through medication as prescribed by a doctor

First aid for epilepsy

1. Stay with them
 - Remain calm and reassure the patient.
 - Stay with the patient until they have fully recovered.
2. Keep the person safe
 - Cushion the head using a soft pillow to prevent injuries
 - The person should be comfortable and lying down on their side
 - Keep the person in a well ventilated area
 - Loosen tight clothing around the person neck and any other part of the body
 - Ensure the person does not have objects in the mouth.
 - Do not give liquids or food unless the person is fully awake
3. Seek medical help if
 - The seizure continues for over 5 minutes. Always time the duration of the seizure.
 - They have never had a seizure before
 - They are not responding after the seizure has stopped or gets another attack immediately after.
 - They sustained an injury during the seizure

Asthma

- Is a condition in which a person's airways becomes narrow and swollen and produces extra mucus.
- This makes it difficult to breathe. In some cases, it may lead to life threatening attacks.

Causes of asthma

1. Family history
2. Respiratory diseases such as viruses, pneumonia and flu
3. Environmental factors
 - These are things that are found in our surrounding that may affect ones breathing. Such things may include allergens such as pollen, dust, animal fur or feathers, smoke, fumes and pollination.
 - Extreme weather conditions, conditions such as very high humidity or low temperature may trigger asthma.

Signs and symptoms of asthma

1. Wheezing (whistling sounds when breathing)
2. Shortness of breath
3. Tight chest which may be painful.
- 4.

Prevention and management of asthma

1. Take prescribed medication
2. Give first aid for asthma
3. Identify and avoid asthma triggers
4. Manage stress

First aid for asthma attacks

1. Let the person sit upright
2. Ensure there is adequate ventilation
3. Stay calm as you reassure the person
4. Find out if the person has an asthma inhaler assist them to administer the inhaler.
5. In the absence of an inhaler, assist the person to take long and deep breathe
6. Keep off trigger and allergies like dust or strong smells
7. Should the asthma attack continues for more than five minutes, seek medical help.

Cancer

Is a disease in which some of the body cell grow uncontrollably and spread to other body parts of the body destroying the tissues of the body. Where these cells have settled.

Causes of cancer

1. Smoking
2. Family history
3. Excessive consumption of alcohol
4. Use of cosmetics containing harmful chemicals
5. Eating foods that contain preservatives and harmful chemicals.

Signs and symptoms of cancer

1. Abnormal bumps
2. Unexplained fevers
3. Night sweats or unintentional Weight loss
4. Fatigue or extreme tiredness
- 5.
- 6.

Prevention and management of cancer

1. early detection of presence of cancer cells in the body is important in prevention and management of cancer disease
- 2.
- 3.
- 4.

Heart diseases

- Heart diseases occur due to interruption of blood supply to the heart. This may be as a result of a deformity in the heart(such as a hole) or due to blockage of arteries supplying blood in the heart

Causes of heart diseases

1. Unhealthy lifestyle
2. Heart infections
3. Heart defects
- 4.
- 5.
- 6.

Signs and symptoms of heart diseases

1. Chest pains
2. Shortness of breath
3. Easily tiring during an activity
4. Pain in the neck, jaw, throat, upper abdomen or back and dizziness
- 5.

Prevention and management of heart diseases

1. Exercising regularly
2. Reducing intake of fats
3. Avoiding drug and substances abuse
4. Maintaining healthy weight
5. Following prescribed medications and other instructions by the doctor.

CONSUMER EDUCATION

Budgeting

- **Budget** is the process of how to spend money that one has for a certain period of time.
- A budget helps to balance your your expenses in relation to available income.
- A **shopping list** helps one to save by helping a person to buy only the things they need.

Importance of budgeting

1. It enables a person to spend wisely
2. It helps a person to avoid debts by spending on items they can afford
3. It enables a person to set priorities on the most important needs
4. It reduces wastage and impulse buying because a person budgets for what is necessary.
5. It helps one to know the amount of money they require for a certain period of time.

Factors to consider when making a budget

1. **Your** income
2. your spending habits
- 3.
- 4.
- 5.
- 6.

PUPILS ACTIVITY

PAGE 45-46

Making a budget for personal use

- Making a budget helps to cater for the most important needs in a family.
- If the budget is followed, it helps one to have a peace when available has been spent well.
- PUPILS ACTIVITY
Page 46-47

Creating a portfolio of budgets

PUPILS ACTIVITY

Page 47

FOODS AND NUTRITION

- **Food** is what we eat or drink for energy and growth

FOOD NUTRIENTS

MINERALS (IRON AND IODINE)

- **Minerals** are those elements on the earth and in foods that our bodies need to develop and function normally.
- **Micro nutrients** are minerals required in small amounts in our bodies.
- **Minerals** needed for proper functioning of the body are also called essential minerals.
- **Minerals** help our bodies to develop and function normally
- Minerals also protect our bodies against disease

Different minerals found in foods

- The foods we consume have different minerals that our bodies need to function well.
- Some of the minerals include
 1. Iodine
 2. Calcium
 3. Iron
 4. Sodium chloride
 5. Zinc
 6. Magnesium

Sources of iron and iodine found in foods in the locality

	FOODS RICH IN IRON	FOOD RICH IN IODINE
1	spinach	Iodized salt
2	Lentils	Eggs
3	Broccoli	Beef liver
4	tofu	Chicken
5	liver	Dairy – milk, cheese, yoghurt
6	Red meat	Fish – tuna, oysters
7	Turkey meat	Seaweed
8	Legumes - peas	Crab
9	Shellfish	
10	Pumpkin seeds	

Importance of iron and iodine in the body

- Iodine is important mineral that our thyroid needs to produce certain hormones
- A **thyroid** is a gland found in the neck. It produces hormones that regulate growth and development
- Not getting enough iodine can cause **goitre**
- Iodine also improves our defence against infections and regulates body functions • Iodine also helps develop the brain

- Iron forms haemoglobin, a red blood cell protein whose main purpose is to transport oxygen in the blood.
- Iron strengthens the body's protective system against viruses, bacteria and infections.
- Intake of iron helps prevent iron deficiency anaemia. (adolescents girls are encouraged to eat foods rich in iron to replace iron lost during menstruation to prevent anaemia).

Planning a meal that includes minerals in the diet

- It is important to include foods rich in minerals in the diet while planning for meals.
- This ensures all meals provide essential minerals need by the body.
- PUPILS ACTIVITY
Page 54-55

Daily log of foods eaten rich in iron and iodine

PUPILS ACTIVITY

Page 56-57

- When you create a daily log of foods eaten rich in iron and iodine it will help you asses whet you are eating food rich in the two essential mineral.

Day of the week	Iron and iodine rich foods
Monday	Ugali, liver, manage and pawpaw
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Preservation and storage of meat

- **Food preservation** is the process or technique used to maintain food in good condition in order to stop or slow down spoilage.
- This will prevent food borne illness as well as maintain nutritional value and flavour of the food
- This reduces food wastage.
- The food that is preserved is kept properly for use in the future

Source of meat in the locality

- Meat is flesh from animals eaten as food.
- Most common sources of meat are from animals i.e. cow, sheep, chicken, fish

Importance of preserving and storing meat

- Meat is highly perishable food that spoils within a short time therefore proper preservation and storage is essential
 1. Preserving meat maintains its nutritional value.
 2. Preserving meat keeps it longer for future use
 3. Prevents meat from getting spoil

4. Meat preservation prevents wastage.

Facilities used for preserving and storing meat

1. Drying rack
2. Hook
3. Refrigerator/Fridge
4. Freezer
5. Airtight food containers

Methods and procedure of preserving and storing meat

1. Refrigeration
2. Sun drying
3. Salting
4. Smoking

Refrigeration

- Meat is preserved through refrigeration is kept under low temperature.
- Refrigerator has cooling and freezing compartments.
- Meat kept in the cooling compartments of the refrigerator keeps fresh for a short time while the freezing compartments keeps meat fresh for a longer time.

Requirements

Fresh meat, chopping board, clean water, refrigerator and a plastic container

Procedure for preserving meat using a refrigerator

1. Clean the meat
2. Cut the meat into pieces
3. Pack in a plastic container
4. Cover the plastic container
5. Store the meat in a refrigerator

Advantages of refrigeration

1. It slows down the growth of bacteria that spoils the meat.
2. Much of the meat's flavour is retained

Disadvantage of refrigeration

1. It normally requires electricity.
2. Food preserved in a refrigerator goes bad if there is unreliable supply of electricity
3. Refrigeration is expensive

Sun drying

- In this method of preservation the sun provides the heat to dry the meat.
- Meat for preservation can either be hung under the sun in an open area or spread on a clean food drying rack
- Protect the meat from insects and animals using a screened cage.

Requirements

Fresh meat, chopping board, clean water, screened cage, drying rack, hook, muslin cloth

Procedure for preserving meat using sun drying

1. Use fresh and lean meat

2. Clean the meat
3. Cut the meat into strips
4. Place the meat on S hook and hung the hooks in a screened cage. A string can be used to hang meat
5. Meat can be placed on a raised food drying roack. Cover the meat with a muslin cloth or fine wire mesh.
6. Allow the meat to dry completely on both sides. This may take several days depending the heat from the sun and wind conditions.
7. Meat can then be stored in a covered airtight container and kept in a cool dry place away from direct sunlight.
8. Sun dried meat can be preserved for at least two months.

Advantages of preserving meat using sun drying

1. The method is easy
2. Sun drying method can be preserved for at least two months

Disadvantages of preserving meat using sun drying

1. The slow drying process requires patience
2. Sunny and windy conditions are restricted to weather conditions.

Salting

- This is process of applying salt to meat.
- Salt prevents the growth of bacteria by removing water content from meat.

Requirements

Knife, chopping board, screened cage, clean water, hooks, fresh meat, salt, plastic container

Procedure for preserving meat by rubbing it with salt

1. Get fresh meat
2. Clean the meat
3. Cut the meat into moderate pieces
4. Rub the salt on the meat surface
5. Use S shaped hooks to hung meat in a screened cage indoors. The equipment keeps insects away
6. Allow the meat to cure for about 4-7 days

Curing meat refers to preserving meat by adding salt, with the aim of drawing moisture out of the food.

7. if needed, rub some more salt on the meat and continue with the curing process.
8. Store meat correctly after preservation in a cool dry place.
9. Before cooking the salted meat, soak in cold water to dissolve salt.

Procedure for preserving meat using brine

1. This method is best applied for fresh and fleshy meat
2. Prepare the brine by dissolving salt in water
3. Clean the meat
4. Cut the meat into lean pieces. Place the meat in a clean container
5. Pour the brine into water. Ensure the meat is completely covered with brine
6. Leave the meat in brine for at least two days
7. Drain off brine from the meat. Dipose water appropriately.
8. Hung brined meat in a screened cage outdoors. Use S shaped hooks to hold the strips.

9. Store meat correctly after preservation in a clean covered container in cool and dry conditions.

Advantages of preserving meat using salting

1. Salt is cheap
2. Salted meat is tender
3. Nutrients are retained in the meat juices
4. Salt kills bacteria hence preventing the meat from spoiling

Disadvantages of preserving meat using salting

1. Salted meat is unsuitable for people suffering from high blood pressure
2. Salted meat contributes to weak bones
3. Salted meat increases the risk of contracting kidney stones. A kidney stone is a solid piece of material that forms in the kidney from substances in the urine.

Smoking

Smoking is a method of preserving meat by exposing it to smoke and heat from open fire.

Requirements

Fresh meat, chopping board, hooks, fire pit, gloves, hammer, nails, dry wood, plastic container, jembe, panga, two poles

Procedure for preserving meat using smoking

1. Use a jembe to dig a shallow pit at a convenient site
2. With a panga, make a hole on each side of the pit
3. Erect the 1.5m poles on each hole. Join at the top with the one 1m pole using nails and a hammer.
4. Hung several hooks on the 1m pole
5. Make a fire with the dry wood. Smoke will be created
6. Cut meat for few hours
7. Air dry the meat for a few hours
8. Hung the meat on the S hook over the smoke.
9. Ensure regular supply of smoke by adding dry wood chips.
10. Smoke the meat completely until dry
11. Store meat correctly after its preservation in a cool dry place.

Advantages of preserving meat using smoking

1. The smoke coats the meat and keeps off bacteria and fungi
2. Flavour of the meat is improved
3. Smoked meat has enhanced aroma and appearance

Disadvantages of preserving meat using smoking

1. It requires close attention; one should add firewood from time to time to ensure that smoke is continuously emitted.
2. Too much heat will cook the meat before it is properly smoked.
3. The process requires close attention and monitoring.

Using different methods and procedure to prevent meat at home

PUPILS ACTIVITY

Page 69-70

Hygiene measures while preserving and storing meat at home

- Observing hygiene when preserving meat is very important to ensure there is no spoilage of meat
- Proper hygiene also prevents contamination of food that can easily lead to food borne disease
- Wash your hands with clean water and soap before handling meat
- Cut the meat on a clean chopping board
- Do not mix different types of meat in one container
- Use clean equipment to preserve and store meat.

Preservation of fruits and vegetation

Fruits and vegetables available in the locality

A fruit is the sweet and fleshy product of a tree or plant that contains seeds and can be eaten as food

A vegetable is a plant or part of plants used as food , such as roots, stems or leaves

Fruit	Vegetables
Banana	Kales

Importance of preserving and storing fruits and vegetables

Fruits and vegetables are highly perishable

1. It makes them last longer
2. It saves money
3. It prevents them from going bad
4. It avoids wastage
5. It makes fruits and vegetables available throughout the season

Facilities for preserving and storing fruits vegetables

Cool and dry conditions are the most ideal for preservation and storage of fruits and vegetables

Using appropriate preservation and storage facilities help to keep the fruits and vegetables fresh for longer

Different facilities like

1. Refrigerator
2. Sacks
3. Pots and glass jars
4. Plastic containers
5. Packaging bags

Drying fruits and vegetables

1. Sun drying method of preservation is also ideal for drying fruits and vegetables
2. Fruits and vegetables can also be dried by use of machine known as dehydrators
Removing water content from fruits and vegetables preserves them for longer compared to when they are fresh.

Pupil's practical activity

Page 79-82

Hygiene practices to observe while preserving and storing fruits or vegetables

It is important to always observe hygiene and safety while handling fruits and vegetables in order to avoid contamination which may lead to food borne illness.

1. Clean fruits and vegetables using clean water
2. Use clean storing equipment
3. Tightly cover the containers used to store dried fruits and vegetables to preserve dirt from entering
4. Wash your hands using soap and clean water before handling fruits or vegetables

Cooking equipment

Cooking equipment include

1. Charcoal jiko
2. Electric cooker
3. Gas cooker
4. Paraffin stove (kerosene) stove
5. Traditional open fire place
- 6.

There are different types of cooking equipment

They use different types of fuel such as electricity, gas, firewood and charcoal

Daily cleaning of cooking equipment

Cooking equipment should always remain clean and ready for use at all times

Keeping them clean helps prevent bacterial growth and keeps pests away

Maintain cleanliness also saves you time and money as well as making your work comfortable when using them

Cleaning a charcoal jiko

A jiko is a portable charcoal stove that may have a ceramic liner fitted inside a metal case (energy saving jiko)

Pupil's practical activity

Page 86

Cleaning an electric cooker

This is an equipment which uses electricity fuel as a source of heat

Pupil's practical activity

Page 87-88

Cleaning a gas cooker

This is a cooking equipment which uses gas fuel as a source of heat

Pupil's practical activity

Page 88-91

Cleaning a paraffin stove

This is a cooking equipment that uses kerosene as a source of heat

Pupil's practical activity

Page 91-94

Cleaning a traditional open fire place

This is an open area with three stones that help to support the cooking pot while cooking
It generally use dry firewood as fuel

Pupil's practical activity

Page 94-95

Cleaning an improved firewood stove

- This is cooking area built and plastered with cement or clay
- It has an opening which allows you to feed small pieces of dry firewood, maize cobs or coconut husks
- The cement or clay plaster helps to retain heat and this helps to reduce the amount of wood fuel used
- An improvised firewood stove is an example of an energy efficient device
- Care should be taken when cleaning the improvised stove to avoid damaging its plastered walls.
- It can have a single or double burner

Pupil's practical activity

Page 95-97

Improvising materials for cleaning equipments

When taking care of cooking equipments, sometimes you may need to improvise cleaning materials available

1. We can cut an empty five litre jerrycan and use it as a dustpan
2. We can use our old clothes or towels as wiping cloths
3. We can make a broom using twigs
4. We can use a carton box as dustbin

Safety when cleaning cooking equipment

Failure to observe safety when cleaning cooking equipment may cause accidents and injuries

1. Wipe spilled water to avoid falls
2. Be careful when cleaning stoves to avoid spilling paraffin
3. Switch off the electric cooker and unplug it from the socket during cleaning
4. Ensure the cooking equipment has cooled before cleaning it
- 5.

Planning meals for a family

- ✓ A meal is food that is eaten for breakfast, lunch or dinner
- ✓ Meal planning is the process of deciding what you will eat for each meal and getting prepared ahead of time
- ✓ It also entails knowing how many meals to plan for and when to serve them
- ✓ A meal plan helps us to plan efficiently

Factors to consider when planning a family meal

1. Money

The amount of money available determines the type and quality of food a person can buy.

2. Variety of diet

Meals should contain all food nutrients in the right proportions. The food should contain carbohydrates, fats, vitamins and minerals

3. Dietary needs

Different members of the family require to eat different types and amount of food because of various reasons.

These reasons include

A. AGE

Babies, children and adolescents need more bodybuilding foods, energy giving and protective foods. The elderly people need more protective foods and proteins than carbohydrates because they are not very active

B. BODY SIZE

A big body size needs more energy compared to smaller body size.

C. GENDER

Girls and women need more iron compared to boys and men. This is because they need to cater for the blood they lose during menstruation

D. STATE OF HEALTH

Sick people need more protective and body building foods in quick recovery

Some illness such as diabetes and ulcers has strict diet restrictions

E. OCCUPATION

A manual worker requires more energy giving foods while a lightly worker needs less energy giving foods

4. Availability of foods

Foods which are readily available, fresh and cheaper

When planning for a meal, you should consider buying foods which are in season because they are cheap

5. Number of people

You should consider the number of people who will take the meal.. this will help plan for enough food

6. Time

The time available for preparing and cooking food will determine the type of food to be cooked

7. Fuel

The fuel that will be used influences the cost of cooking, efficiency and type of cooking method to be used

Different types of meal for different times of the day

Reasons for planning a family meal at home

1. It saves time.

Planning meals in advance helps one manage time better

2. Avoid wastage of food

When planning for a meal, we consider the number of people so as to avoid a balanced diet

3. Planning meals helps us to budget for a balanced diet

4. It saves money

Planning meals helps one buy the right amount of food. This avoids wastage of food

5. Planning for meals ensures you include variety

It makes one avoid eating the same food every day

6. Planning for meals helps one to provide a healthy and balanced diet

Planning and preparing a simple meal for a family.

Planning meals which are healthy and include a variety of foods to provide your family with all nutrients needed each day

Serve a balance of family favourites and new recipes

Vary your cooking methods for example you can fry, boil, bake, grill, stew or use other method.

Try not to serve the same food twice in the same day

Cooking methods

Stewing

It is a method of cooking food by slow boiling or simmering

The food is served with the boiling liquid (stew)

Pupil's practical activity

Page 108-112

Improvising cooking equipments for stewing

Improvisation of cooking equipments needs one to be resourceful and creative on use of resources available in the locality at the time of cooking.

Pupil's practical activity

Page 112-113

Serving stewed food

- ✓ We should serve food on clean plates
- ✓ Serve food when it is hot. Hot food digests easily and tastes better
- ✓ Serve the right amount of food. Do not serve too little or too much.
- ✓ Serve food neatly. While serving, avoid spilling food on the edges of plate
- ✓ You can serve the food creatively to make it look appealing

- ✓ When the stew remains after serving, let it cool. Put it in a container, cover it and store it in a cool place.

Safety measures to practise when stewing food

1. Hold the sufuria using a sufuria holder
2. In case of fire, use a damp towel or blanket or fire extinguisher to put it out
3. Do not leave food that is cooking unattended
4. Be careful when using knives
5. Switch off cooking equipment after use
6. Be careful when opening sufuria lids when cooking to avoid scalds
7. Cook in a well lit and ventilated room
8. Wash your hands before cooking

Cooking methods

Baking (rubbing in method)

Baking is a method of cooking food that uses dry heat, normally done in an oven.

Baking is appropriate for foods that have enough moisture such as potatoes and flour mixtures for cakes, bread and other food items

Foods that can be baked

Baking as a method of cooking normally gives baked food items a characteristics flavour, aroma, texture and colour

1. Bread
2. Biscuits
3. Cakes
- 4.
- 5.
- 6.

Equipments and materials used for baking

- 1.
- 2.
- 3.
- 4.
5. Rolling pin
6. Measuring jar
- 7.
8. Oven gloves

Procedure of baking a simple cake using rubbing in method

Rubbing in method is a technique where fat (margarine or butter) is rubbed into the flour using fingertips

Pupil's practical activity

Page 120-121

Safety measure to observe when baking

1. Wipe spill liquids to avoid falls
2. When baking using a jiko ensure the area is well ventilated
3. Use oven gloves or pieces of dry cloth to remove baking tins from the oven
4. Do not handle an electric oven and other equipments with wet hands
5. Ensure that there are no spills in the oven
6. Ensure there is no leakage when using gas oven

Improvising cooking equipment for baking

Pupil's practical activity

Page 123-126

Storing baked cakes

- ✓ When properly stored, cakes maintain freshness for long
- ✓ The freshness of a cake is affected by various factors within the environment such as heat, humidity, intense light and insects among others
- ✓ It is important to store cakes properly to prevent them from spoiling.
- ✓ We can store cakes at room temperature or in refrigerator
- ✓ When storing a cake in room temperature, put it in a plastic container. Cover the container to avoid exposure to germs and insects
- ✓ When storing cake in a refrigerator, put it in a plastic container. Cover the container with a lid to prevent it from drying out.
- ✓ Always store in a cool dry place.

CLOTHING

Tools and equipments used for sewing

1. Iron box
2. Ironing board
3. Sleeve board
4. Spraying can
5. Bodkin
6. Needles
7. Scissors
8. Sewing machine
9. Tape measure
- 10.

Factors to consider when choosing tools and equipments used for sewing

1. Quality of sewing machine
2. Price
- 3.
- 4.
- 5.

Using different sewing tools and equipments

Correct use of sewing tools and equipments will make them last long

This also help to save money spent when replacing them in case of damage during use or when they are lost

1. Scissors – a pair of scissors is used to cut out fabric and threads
2. Iron box – used for removing creases on clothes
3. Tape measure – used is to take measurements on fabrics and the body
4. Ironing board – is a narrow flat padded cloth covered surface on which clothes are ironed. It is has adjustable legs that can be folded to suit an individual height. It can be improved with flat padded cloth covered table
5. Bodkin – used to thread cards, ribbons or pipings through a narrow channel or casing in clothes such as waistband of petticoat. A safety pin may be used when there is no bodkin.
6. Water sprinkler - used to sprinkle water on clothes during ironing. This makes it easy to remove creases on clothes

Caring and storing tools and equipments used for sewing

We should store sewing tools and equipments properly so as to

1. Make them last longer
2. Prevent them from getting lost
3. Prevent them from rusting and getting damaged
4. Save money spent to replace lost or damaged items
5. For safety purpose

The following are ways we can store and care for sewing tools and equipment

1. Put scissors in a scissors case. The blades should be facing down
2. Neatly roll a tape measure and tie it with a rubber band. Store it in a sewing kit or container.

3. Keep threads in a box or container
4. Put needles and pins in a pin cushion
5. Put bodkins in a sewing kit
6. Put the sewing materials and equipments in a clean dry place
7. Clean the iron box regularly according to its type. Store the iron box in a cool dry place
8. Regularly oil the hinges of a charcoal box to avoid rusting.
9. Wash the cloth cover of the ironing board regularly
10. Properly wind the sewing thread after use
11. Do not use the pair of scissors for cutting fabric to cut papers

Safety when using, caring for and storing sewing tools and equipments

1. Wear a thimble to protect your finger
2. When using scissors, cut fabrics away from your body
3. Put pins and needles in a pin cushion when not in use
4. Unplug the iron from the socket after use
5. Do not clean the iron when it is hot
6. Ensure there is enough lighting when sewing.

Fabric construction

A fibre is a thin thread of natural or man made substances that is used to make a fabric

The fibres are weaved into yarn

The yarn is then used to make fabrics

A fabric is also known as a cloth or material

There are various methods used to make fabrics

1. Weaving
2. Knitting
3. Crotcheting

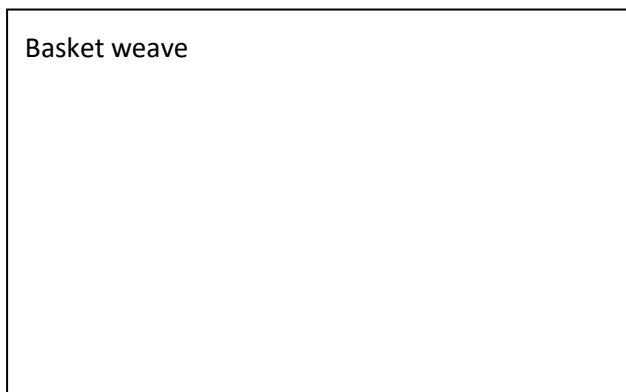
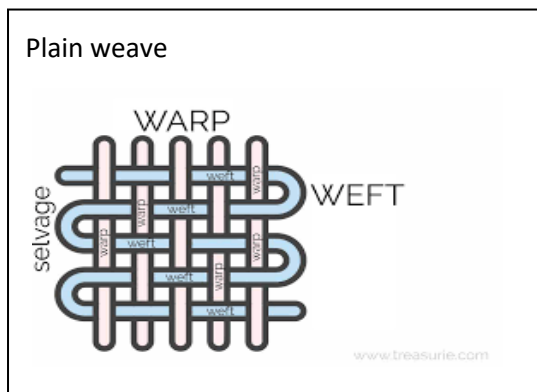
Weaving

Weaving is achieved by interlacing or intertwining two sets of yarns or threads over and under each other at right angles

These yarns or threads either run horizontally (weft threads running across the fabric) or they run vertically warp threads running along the fabric

In plain weave, the left thread goes over and under warp threads.

In basket weave, two weft threads goes over and under two warp threads



Tools, equipments and materials used for weaving

1. Weaving frame – provides framework for weaving. This means it supports the weaving hence making it easier to weave. It is threaded with warp so that you can weave through using weft thread
2. Yarns – are used for weaving. Different coloured yarns can be used to make interesting patterns
3. Scissors – for cutting warp and weft yarns
4. Shed stick – it makes weaving easier by creating an opening between the warp yarns for the weft yarns to pass through
5. Tapestry beater – is a tool that has teeth design to go around the warp threads and push down your weft threads. The tapestry beater will help your weave consistent and tight
6. Shuttle – is a tool designed to neatly and compactly store a holder that carries the thread of the weft yarn. Shuttles are passed back and forth through the shed, between the warp threads in order to weave in the weft
7. Loom
8. Commercial electric weaving machine

Improvising weaving tools, equipments and materials

When actual tools, equipments and materials are not available we can improvise by using

1. Bamboo
2. Reeds
3. Comb
4. Strong cardboard
5. Straws
6. grass

How to improvise weaving yarns

Pupil's practical activity

Page 144

How to improvise weaving frame

Pupil's practical activity

Page 144- 147

Methods of weaving used fabric construction

1. plain weave – a single weft thread goes over and under a single warp thread
2. basket weave – two warp two weft threads go over and under two warp threads

Weaving items for use

Items made from weaving can be used at home or sold for an income

Pupil's practical activity

Page 148-156

Care and storage of weaving tools, materials and equipments

1. wind excess yarn after use
2. store scissors in a scissors case
3. store weaving tools and equipments in a dry place
4. oil the hinges of scissors regularly
- 5.

Safety precautions when weaving

1. When using a pair of scissors, cut away from your body to avoid cutting yourself
2. Report to the teacher when you get hurt
3. Store all the weaving tools and equipments safely after use
4. Work in a well lit room
- 5.

Knitting

Knitting is a process of fabric constructing fabric

It is achieved by applying a continuous yarn or set of yarns to form a series of interlocking loops.

The two basic types of knits (cast on stitches) and purl (cast off stitches)

Knitting may be done by hand or by machine.

Tools and materials used for knitting

1. Scissors – used to cut yarn when finish knitting
2. Knitting needles – used in hand knitting to produce knitted fabrics
3. Yarn – used for knitting.
4. Tape measure – used to measure the size of the item being made
- 5.

Improvising knitting tools and materials

Improvising knitting needles

Pupil's practical activity

Page 162-163

Basic knitting stitches

The knitting process is based on two simple stitches namely

1. Knit stitch - looks like a flat V-shape and is mainly found on the right side of knitted article
2. Purl stitch – looks like a raised bump on both sides of a knitted article

Holding knitting needles and yarns

It is important to hold knitting needles and yarn correctly in order to successfully carry out knitting work

Pupil's practical activity

Page 164

Knitting items for home use

Knit and purl stitches can be used to make interesting items for home use

Knit stitches

Pupil's practical activity

Page 165-168

How do you knit using purl stitch?

Pupil's practical activity

Page 169-172

Safety precautions to be observed when knitting

1. Work in a well lit area
2. When cutting using a pair of scissors keep your fingers away from the blades
3. Do not use your teeth to cut yarn
4. Do not sit too close to each other as you knit
5. Store scissors, all knitting materials and tools properly after use

Care and storage of knitting tools and materials

1. Wind excess yarn after use
2. Store scissors in a scissors case
3. Store knitting tools and equipments in a dry place
4. Oil the hinges of scissors regularly
5. Avoid dropping scissors

Crocheting

Crocheting is the process of creating fabric by interlocking loops of yarn, thread or strands of other materials using a crocheting hook

Tools and materials used for crocheting

1. Crocheting hook
2. Yarn
3. Tape measure
4. Scissors
- 5.

Improvising crocheting tools and materials

We improvise so as to reduce expenses

Improvising a crocheting hook

Pupil's practical activity

Page 176

Basic crocheting stitches

- ✓ There are a number of crocheting stitches
- ✓ Each stitches produces a different pattern
 1. Single crochet stitch
 2. Double crochet stitch

Holding a crocheting hook and yarn

Pupil's practical activity
Page 178-179

Crocheting an item for use at home

A single crochet is the most basic crocheting stitch.
It is also the shortest stitch

Single crochet
Pupil's practical activity
Page 180- 183

A double crochet stitch is a basic crocheting stitch.
It is taller than a single crochet stitch

Double crochet
Pupil's practical activity
Page 184- 187

Safety precautions to observe when crocheting

1. Use a suitable chair and desk or table for comfort.
This will prevent back and neck pain
2. Work in a well lit room to avoid eye strain
3. When cutting using a pair of scissors, keep your fingers away from the blades
4. Ensure there is enough space around you as you crochet to avoid injuring others
5. Store scissors and crocheting hook properly after use

Caring for and storing of crocheting tools and materials

1. Wind excess yarn after use
2. Store scissors in a scissors case
3. Store crocheting tools and equipments in a dry place
4. Oil the hinges of scissors regularly
5. Avoid dropping scissors
6. Store crocheting hooks in a crochet bag

Advantages of crocheted items used at home

1. They keep us warm during the cold weather
2. It is cheap to make the items
3. They make us look stylish
4. They are used to decorate the home
- 5.

Repair and maintenance of pockets

A pocket is an envelope like bag either fastened to or inserted in an article or clothing

Types of pockets

- Pockets can be both useful (used to hold small items) and decorative (when used creatively on a garment)
- Pockets are also attached to bags, backpacks apart from clothes
- Pockets are made of different sizes and shapes
- **Patch pockets** are attached onto the outside of a garment
- **In seam pockets** have pocket opening along the seam line of a garment

Types of damage pockets

Different types of damage may occur on pockets due to their frequent use

These damages include

1. loose stitches
2. a hole
3. wear among others

Factors to consider when repairing a damaged pocket

1. Colour of thread
The colour of the thread used to repair the damaged pocket should match the initial colour of thread that was used to make the pocket
2. Size of the damage
If the damage is a tear, you can use a patch to repair the damage
3. Type of damage
One should determine whether the damage is a tear or loose stitches. This will help determine the type of repair to be done
4. Texture of the fabric
Where the patch repair is necessary, the texture of the patch should match that of the fabric used to make a pocket.

Repairing a damaged pocket

- Timely repair of a damage on a pocket will help to save time and money
- It also prevents loss of items in the pocket

Repair loose stitches on an in seam pockets

Pupil's practical activity

Page 194-195

Repair loose stitches on a patch pocket

Pupil's practical activity

Page 195-198

Safety while using tools and equipments when repairing a pocket

1. Ensure you sew in a room with adequate lighting
2. Always wear a thimble when using a needle
3. Do not sit too close to each other when using needles
4. Do not hold needles and pins in your mouth
5. Put needles and pins in a cushion when not in use
6. Always ensure the needles points towards you when sewing
7. Focus on your work when sewing to avoid injuries
8. Report any accident that happens when using the tools
9. When using a pair of scissors cut away from your body
10. Put the pair of scissors in a scissors case when not in use

LAUNDRY WORK

Laundry work is the process of removing dirt and stains from clothes in order to maintain their appearance.

Special treatment in laundry work

Meaning of Special treatment in laundry work

Laundry work is the process of removing dirt and stains from clothes in order to maintain their appearance.

Laundry involves

1. Sorting
2. Washing
3. Rinsing
4. Drying
5. Airing
6. Storing clothes

Identifying types of special treatment in laundry work

Special treatment given to clothes include

1. Stain removal – involves removing stubborn discolouration from clothes. A **stain** is a dirty mark on a cloth that cannot be removed easily by washing normally
2. Disinfecting – is done to kill germs. It is mostly done on articles to prevent the spread of diseases causing germs. The methods used to disinfect include boiling, use of disinfectants and sun drying
3. Bleaching – is treatment given to cotton and linen articles to make them whiter and brighter by use of chemicals bleaches or exposure to direct sun light. Bleaching is only recommended for white articles
4. Conditioning – fabric conditioning is treatment given to prevent static electricity (non cotton clothes clinging to the body). The clothes given this treatment also feel soft, smell nice and fresh and are easy to iron
5. Boiling
6. Removal of chewing gum is done by applying a cold treatment on the gum. Ice cubes are applied on the gum to harden gum, then scrapped off. Once removed the article is given normal laundry process

Importance of special treatment in laundry work

Special treatment is important in laundry work because it helps to properly care for and maintain clothes

1. Kills germs
2. Softens clothes and makes them smell good
3. Whitens clothes
4. Removes stubborn dirt on clothes
- 5.

Points to consider when carrying out special treatment

1. Remove stains when they are fresh
2. Scrap off stains using a blunt object to avoid tearing the cloth
3. Apply mild methods of stain removal before using harsh methods
4. Read the care labels on clothes. This will provide information for proper laundry treatment

Materials used for special treatment

Use of correct laundry materials will help improves on the final outcome of the laundry process

1. Bleach eg jik
2. Fabric softener
3. Salk
- 4.

Safety precautions to observe when carrying out special treatment in laundry work

1. Ensure bleach does not come into contact with your eyes
2. Disinfectants should be kept out of children's reach
3. Be careful when handling clothes during boiling to avoid burns and scalds
- 4.

Carrying out special treatment in laundry work on different clothes

The success of carrying out different types of special treatment requires use of correct materials and procedure

The special treatment carried out will also depend on the type of fabric and its colour

Removing ball point ink stain

Pupil's practical activity

Page 206-207

Removing fountain pen ink stain

Pupil's practical activity

Page 208-209

Removing grass stains

Pupil's practical activity

Page 209-210

Removing blood stains

Pupil's practical activity

Page 210-211

Removing chewing gum stains
Pupil's practical activity
Page 211-213

Disinfecting articles

Use of disinfectants

Requirements

Disinfectants, basins, warm water, cold water, detergent, iron box, ironing surface, fast coloured shirt and pegs.

Procedure

1. Wash the shirt gently in warm soapy water using gentle friction and kneading and squeezing method
2. Rinse the shirt in warm water to remove all traces of soap
3. Add disinfectants to the final cold water and rinse the shirt
4. Dry the shirt using the correct method, finish and store

Boiling

- Boiling involves steeping articles in boiling water
- This should be done after the articles have been washed and rinsed.
- Boiling is suitable method for disinfecting white and fast coloured cotton and linen articles.
- Articles that need this treatment include
 1. Kitchen towels
 2. Napkins
 3. Hospital gowns
 4. Bed sheets

Pupil's practical activity
Page 215-216

Sun drying

- Sun drying is a method used to disinfect clothes as well as dry them by use of direct sunlight
- Sun drying is a suitable method for disinfecting white cotton and linen articles

Pupil's practical activity
Page 216-217

Use of fabric conditioner

Fabric conditioner is treatment given to non cotton clothes to help reduce or prevent static electricity (garments clinging onto the body), softens fabrics and make them smell nice and fresh

Pupil's practical activity
Page 218-219

Bleaching

Bleaching is a method used to brighten and remove stains on articles by use of chemicals. It is ideal for white clothes and linen articles

Pupil's practical activity
Page 219-220

Cleaning and storing equipments and materials used in special treatment

Pupil's practical activity
Page 221-223

Laundering a woollen or acrylic article

Reasons for care when laundering woollen or acrylic articles

- Woollen and acrylic articles are delicate fabrics
- Read care labels on woollen and acrylic articles before laundry

It	prevent	stretching	them
It	prevents	shrinking	them

It helps maintain their shape and size

Resources for laundering woollen and acrylic articles

1. A flat drying rack is used for drying woollen and acrylic articles after they have been washed to prevent them from stretching
2. A tape measure is used for taking the measurements on acrylic and woollen articles before laundry. This helps reshape the articles back to their original size
3. A towel is used to squeeze out excess water from woollen and acrylic articles after rinsing
4. An iron box is used to press woollen and acrylic articles.
5. Basins and buckets hold water that is used to wash and rinse woollen and acrylic articles

Laundering a woollen and acrylic sweater

Pupil's practical activity

Page 226-229

1. Woollen or acrylic articles should not be soaked. This because they lose shape easily especially when wet
2. Woollen or acrylic articles should be washed by kneading and squeezing method to avoid stretching them out of shape
3. Woollen or acrylic articles should not be wrung to avoid stretching them out of shape
4. Woollen or acrylic articles should be dried on a clean flat surface under a shade to avoid stretching.

Cleaning and storing laundry equipment

Pupil's practical activity

Page 230-231

Laundering loose coloured clothes

Reasons for care during laundering loose coloured clothes

Clothes which can easily lose their colour during laundry should be handled with care in order to keep them colourful for longer

If proper care is not taken during laundry, the loose dye may discolour other clothes therefore damaging them

Materials used for laundering loose coloured clothes

We use different materials for laundering loose coloured articles

1. Vinegar
2. Salt
3. Lemon
- 4.
- 5.
- 6.

Procedure of laundering loose coloured clothes

Pupil's practical activity

Page 233-235

NB

1. Loose coloured clothes should not be soaked to prevent loss of colour.
2. Loose coloured clothes should be washed using mild detergent to minimise loss of colour
3. Loose coloured clothes should be washed using kneading and squeezing method to prevent loss of colour
4. Loose coloured clothes should not be wrung to prevent loss of colour
5. Salt is added to the final rinsing water to fix colour. Vinegar and lemon can also be added to the final rinsing water to brighten colour
6. Loose coloured clothes should be hanged inside out under the shade to prevent the colour from fading.
7. Loose coloured clothes should not be hanged close to or overlapping each other to prevent transfer of colour.

Cleaning and storing equipments and materials used in laundry of loose coloured articles

Pupil's practical activity

Page 236-237